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Laser receives largest optical-quality domed window

by Rich Garcia, Directed Energy Directorate

KIRTLAND AFB, N.M. — Airborne Laser officials here announced recently that they have accepted delivery of the largest optical-quality domed window ever manufactured.

This is a major step in the production of a turret window for the Airborne Laser, an aircraft that will use a laser to destroy missiles from hundreds of miles away.

The 340-pound conformal window measures 1.8 meters, nearly 6 feet, in diameter and incorporates unique materials to meet the stringent high-energy laser beam transmission requirements of the program.

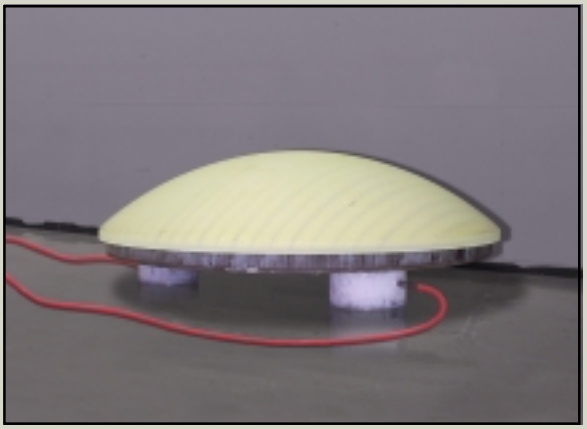
Through this glass, which will be in the nose of a modified 747-400 aircraft, will pass the high-energy laser beam and illuminator laser beams used by the ABL to track and destroy ballistic missiles in their boost stage.

The window will be polished and shaped into its final configuration. Then it will be coated and installed into the composite turret ball located in the nose of the aircraft.

Final integration and test of the Lockheed Martin-built beam control/fire control system is scheduled for late 2001.

The Airborne Laser System Program Office operates from Kirtland AFB. This office heads an industry team led by the Boeing Company in Seattle, Wash.

Boeing has overall program management and system integration responsibilities. Boeing is also developing the battle management system and modifying the 747-400 aircraft. Those efforts will be done at their facilities in Seattle, Wash., and Wichita, Kan. TRW of Redondo Beach, Calif., is building the chemical oxygen-iodine laser and the related ground support subsystem. Lockheed Martin Missiles & Space is developing the beam control/fire control subsystem in Sunnyvale, Calif. **@**



ONE BIG WINDOW — This 340-pound conformal window incorporates unique materials to meet stringent high-energy laser beam transmission requirements and is a major step in the production of a turret window for the Airborne Laser project.